[54] **SPORTS SCORING DEVICE INCLUDING A FLEXIBLE PREZOELECTRIC LAYER RESILIENT LAYER**

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[21] Appl. No.: **785,969**

[22] Filed: **Oct. 10, 1985**

[51] Int. Cl.⁴ A63B 67/00; A63B 69/00

[52] U.S. Cl. .... 273/1 GC; 273/1 E; 272/76; 272/77; 310/318; 310/800; 73/862.59

[58] Field of Search .... 273/1 GE, 183 R, 183 A, 273/184 R, 186 A, 181 G, 181 J, 181 K, 1 GC, 1 ES, 1 F; 272/76, 77; 310/310, 318, 319, 800, 311; 73/862.59

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[57] **ABSTRACT**

Disclosed is a device for generating an analog output signal indicative of an impact to a transducer. The transducer may be mounted on protective equipment utilized in various martial arts fields, such as protective vests and the like or can be mounted on training equipment, such as a heavy bag, striking pad, etc. In a preferred embodiment the transducer is a piezoelectrical signal which is indicative of the amount of deformation. By placing the piezoelectric film on top of a deformable material, in a preferred embodiment sandwiching it in the deformable material, impacts to the deformable material will strain the piezoelectric film generating the signal output. In a further embodiment of the present invention, the piezoelectric transducer is mounted on a target pad and provides an analog output indicative of the characteristics of an object impacting the target pad. For use in the martial arts, the transducer may be connected to a transmitter and remote receiver for providing an indication of the impact at a remote location.

13 Claims, 5 Drawing Sheets